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UNCLAS SECTION 01 OF 06 ROME 002330

SIPDIS

PARIS FOR NSF REP SCHINDEL
DEPT FOR OES/STC AND STAS, EUR/WE

WHITE HOUSE FOR OSTP
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E.O. 12958: N/A

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SUBJECT: SWEEPING ITALIAN RESEARCH REFORMS SWEEP OUT CNR
PRESIDENT BIANCO BUT MAY NOT SWEEP IN INDUSTRIAL INNOVATION

REF: A)02 ROME 2147, B) 02 ROME 4032, C) 02 ROME 3727 D)
ROME 2080

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1. (SBU) SUMMARY: TAKEN IN SCHUMPETERIAN TERMS, ITALY IS POORLY POSITIONED AT PRESENT TO GENERATE OR BENEFIT IN EARLY STAGES FROM THE "LONG WAVES" OF RESEARCH, INVENTION, AND INNOVATION WHICH CHARACTERIZE MAJOR TECHNOLOGICAL PARADIGM SHIFTS LIKE INFORMATION COMMUNICATION TECHNOLOGY (ICT), BIOTECHNOLOGY, OR NANOTECHNOLOGY. WHILE ITALY CAN AND DOES GENERATE SCIENTIFIC BREAKTHROUGHS, ESPECIALLY IN HISTORICALLY STRONG DISCIPLINES SUCH AS MEDICINE AND PHYSICS, AND CAN PRODUCE BRILLIANT INNOVATIONS, IT DOES NOT HAVE AT PRESENT EITHER THE NECESSARY LEVEL OF R AND D FUNDING AT THE NATIONAL LEVEL OR THE CRITICAL MASS OF KNOWLEDGE CHARACTERISTIC OF INTERNATIONAL TECHNOLOGY CLUSTERS. ITALIAN ATTEMPTS TO BUILD THESE LINKS TO DATE - VIA SCIENCE AND TECHNOLOGY PARKS, CENTERS OF EXCELLENCE OR DESIGNATED TECHNOLOGY "POLES" OR REGIONS - HAVE ACHIEVED LIMITED SUCCESS. ITALIAN INDUSTRY CONTINUES TO PLACE TOO MUCH CONFIDENCE ON HIGH TECHNOLOGY TO GROW NEXT GENERATION BUSINESS, WHETHER NEW OR TRANSFORMATIONS OF EXISTING INDUSTRIES. LAST, THE CULTURE OF RESEARCHERS IN ITALY - HIGHLY INDEPENDENT, COMPETITIVE - CONTINUES TO CONFOUND

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EFFORTS TO DERIVE ECONOMIC RETURNS FROM PUBLIC INVESTMENT. THE REFORMS OF MINISTER FOR EDUCATION, UNIVERSITY AND RESEARCH (MIUR) LETIZIA MORATTI ARE INTENDED TO IMPROVE THE EFFICIENCY OF RESEARCH "THROUGHPUTS" TO INDUSTRY, AND TO CONVINCE INDUSTRY TO INVEST MORE IN R AND D, IN ACCORDANCE WITH EU STRATEGIES. THE RESIGNATION OF FORMER CNR PRESIDENT LUCIO BIANCO (REF D), UNDER FIRE FROM THE MINISTER FOR THE LAST HALF YEAR, COULD BE A SIGNIFICANT STEP ALONG THE PATH TO REFORM. NEW CNR COMMISSIONER DESIGNATE ADRIANO DE MAIO TOLD US ON MAY 20 THAT HE PLANS TO MOVE ON MORATTI'S PROGRAM WITH A MINIMUM OF TALK AND A MAXIMUM OF ACTION. END SUMMARY.

CNR REFORM REDUX? BACKGROUND AND STATUS

2. (U) ON JAN. 31, 2003 THE COUNCIL OF MINISTERS ISSUED A DRAFT DECREE TO REFORM THREE RESEARCH INSTITUTES (THE NATIONAL RESEARCH COUNCIL - CNR, THE SPACE AGENCY - ASI, AND THE NATIONAL INSTITUTE OF ASTROPHYSICS - INAF). WHILE REFORM FOR ASI AND INAF IMPLIES MINOR CHANGES, THE CNR WOULD BE RADICALLY RESTRUCTURED, AND THE COUNCIL OF MINISTERS DECIDED TO APPOINT A COMMISSIONER (PROF. ADRIANO DE MAIO) TO OVERSEE THE REFORM. CURRENT CNR PRESIDENT LUCIO BIANCO APPEALED TO THE ADMINISTRATIVE REGIONAL COURT (TAR) WHICH SUSPENDED HIS DISMISSAL ON FEB. 20. ON MAY 13, BIANCO RESIGNED WHEN HE LEARNED THAT THE RESEARCH REFORM PROPOSAL HAD BEEN SUPPORTED BY THE TECHNICAL ADVISORS OF THE COUNCIL OF MINISTERS, WHICH APPROVED THE REFORM LAW DECREES ON MAY 16 (REF D).

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3. (U) THE LATEST REORGANIZATION CONFIRMED A SERIES OF INITIATIVES THAT DATES FROM 1999 (REFS A-C). THE 1999 REFORM, WHICH CONSOLIDATED THE MORE-THAN-300 INSTITUTES OF CNR INTO 108, TURNED OUT TO SIMPLY RENAME THE HEADS OF THE INSTITUTES TO DIVISION DIRECTOR POSITIONS AND FAILED TO ACHIEVE THE ECONOMIES OF SCALE OR INTERDISCIPLINARY ACTIVITY INTENDED BY THE REFORM. ONE POSITIVE ACHIEVEMENT WAS THE INTRODUCTION OF A PEER-REVIEW SYSTEM FOR THE EVALUATION OF RESEARCH PROPOSALS.

4. (U) CNR WAS HELD UP TO PUBLIC SCRUTINY FOR ITS MORIBUND WAYS SEVERAL TIMES IN THE FALL OF 2001 IN NATURE MAGAZINE, PARTICULARLY IN ITS INTERNATIONAL SEARCH FOR NEW CNR INSTITUTE DIRECTORS, ALL OF WHOM TURNED OUT ULTIMATELY TO BE ITALIAN AND FORMER CNR DIRECTORS. ACCORDING TO A PRESS ARTICLE, THE CORTE DEI CONTI (THE SUPREME ADMINISTRATIVE COURT) COMMENTED ON THE CNR REFORM IN AUGUST 2002: "108 INSTITUTES SURVIVED A REFORM WHICH ESSENTIALLY WAS LIMITED TO AGGREGATIONS WITHOUT A STRATEGIC DESIGN AND JUST MOVED INSTITUTES INTO OTHER INSTITUTES INSTEAD OF CLOSING THEM. MOREOVER, THE FACT THAT THE INSTITUTES ARE LOCATED [GEOGRAPHICALLY] FAR FROM EACH OTHER INCREASES THE RISK OF DUPLICATIVE ACTIVITY THAT WAS TYPICAL OF THE PREVIOUS CNR ORGANIZATION AND THUS SUBSTANTIALLY BETRAYS THE AIM OF THE

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ACTION OES-00

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	IO-00	L-00	VCE-00	AC-01	NSAE-00	NSCE-00	NSF-01
	OIC-02	PM-00	PRS-00	ACE-00	SP-00	SSO-00	SS-00
	TEST-00	T-00	USIE-00	EPAE-00	PMB-00	G-00	SAS-00

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R 280806Z MAY 03
FM AMEMBASSY ROME
TO SECSTATE WASHDC 0103
USDOC WASHDC
WHITE HOUSE WASHDC
INFO AMCONSUL MILAN
AMCONSUL FLORENCE
AMCONSUL NAPLES
EU MEMBER STATES COLLECTIVE

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SUBJECT: SWEEPING ITALIAN RESEARCH REFORMS SWEEP OUT CNR
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REFORM." CNR HAS 8082 EMPLOYEES, 4319 RESEARCHERS, 2643
TECHNICIANS, AND 1120 ADMINISTRATIVE PERSONNEL. FOR 2003,
THE CNR WILL RECEIVE 544 MILLION EURO AND SPEND 413 MILLION
IN SALARIES, AND 50 MILLION IN OPERATIONS AND MAINTENANCE.
ONLY 81 MILLION EURO ARE LEFT FOR RESEARCH PROJECTS.

THE 2003 REFORM - HIGHLIGHTS

15. (U) RESEARCH MINISTER MORATTI'S 2003 REFORM REORGANIZES
THE CNR INTO EIGHT LARGER DEPARTMENTS THAT WOULD USE BOTH
PUBLIC AND PRIVATE FUNDS FOR OPERATIONS AND RESEARCH. THE
DEPARTMENTS, ALSO CALLED "MACRO-AREAS", WILL BE:

- 1) BIOTECHNOLOGIES
- 2) MEDICAL SCIENCE AND TECHNOLOGIES
- 3) MATERIALS SCIENCE AND TECHNOLOGIES (INCLUDING
NANOTECHNOLOGIES)
- 4) ENVIRONMENT AND EARTH SCIENCES AND TECHNOLOGIES
- 5) INFORMATION AND COMMUNICATION SCIENCES AND TECHNOLOGIES
- 6) ADVANCED PRODUCTION SYSTEM SCIENCES AND TECHNOLOGIES
- 7) JURIDICAL AND ECONOMIC SCIENCES
- 8) HUMANISTIC SCIENCES

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THE EIGHT DEPARTMENTS WILL 1) COORDINATE THE INSTITUTES
WITHOUT DUPLICATION OF ACTIVITY; 2) ALLOCATE FUNDS ACCORDING
TO THE PROGRAMS AUTHORIZED BY A NEW ADMINISTRATIVE BOARD; 3)
ENTER INTO THE EUROPEAN EXCELLENCE NETWORK, AND PROMOTE
INTERNATIONAL CONTACTS; AND 4) SUPPORT COOPERATION WITH THE
INDUSTRIAL SECTOR.

16. (U) THE NEW REFORM ALSO PROVIDES FOR:
- CREATION OF AN ADMINISTRATIVE BOARD - A GOVERNING BODY -
COMPOSED OF THE CNR PRESIDENT AND SIX PROMINENT
SCIENTISTS/MANAGERS NOMINATED BY THE MINISTRY, THE STATE-
REGION CONFERENCE, THE UNIVERSITIES RECTORS CONFERENCE, THE
CHAMBERS OF COMMERCE, AND CONFINDUSTRIA (INDUSTRIES
ASSOCIATION).
- A NEW SCIENTIFIC COUNCIL (20 MEMBERS NOMINATED BY THE
ADMINISTRATIVE BOARD, THE CNR PRESIDENT, THE CNR
RESEARCHERS, AND THE NATIONAL COUNCIL OF ECONOMY AND LABOR)
- A NEW EVALUATION COMMITTEE (EIGHT CNR-EXTERNAL MEMBERS
NOMINATED BY THE MINISTRY, THE STATE-REGION CONFERENCE, THE
UNIVERSITIES RECTORS CONFERENCE, THE CHAMBERS OF COMMERCE)
- A NEW COUNCIL OF DEPARTMENTS DIRECTORS (CNR PRESIDENT, DG,
AND DIRECTORS)
- A NEW AUDITORS' COMMITTEE (THREE MEMBERS NOMINATED BY THE
RESEARCH MINISTRY AND BY THE ECONOMY MINISTRY)

ITALIAN SCIENTISTS ARE DIVIDED BY WHOSE OX IS GORED

17. (SBU) RESEARCHERS ARE DIVIDED INTO TWO GROUPS: ONE
GROUP FAVORING MORATTI'S REFORM WROTE THE MINISTER A LETTER
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LAST FEBRUARY OFFERING COOPERATION TO IMPROVE THE ITALIAN
RESEARCH SYSTEM. ACCORDING TO THE PRESS, THIS GROUP
SUPPORTS THE REFORM'S CONCENTRATION OF FUNDS TO A FEW
SPECIFIC OBJECTIVES, AND THE INTEGRATION OF ITALIAN RESEARCH
INTO THE EU RESEARCH NETWORK. THIS GROUP INCLUDES ENZO
BOSCHI, THE PRESIDENT OF THE NATIONAL INSTITUTE OF
GEOPHYSICS, ENRICO GARACI, THE PRESIDENT OF THE NATIONAL
INSTITUTE OF HEALTH, SERGIO VETRELLA, THE PRESIDENT OF THE
ITALIAN SPACE AGENCY, AND ENZO IAROCCI, THE PRESIDENT OF THE
NATIONAL INSTITUTE OF PHYSICS.

18. (SBU) SCIENTISTS OPPOSING MORATTI'S REFORM - MAINLY CNR
RESEARCHERS - BELIEVE THE PLAN WILL INTRODUCE TOP-DOWN
GOVERNMENT CONTROL OF RESEARCH PRIORITIES AND THUS CHANGE
THE PRESENT ARRANGEMENT OF ALLOWING CNR RESEARCHERS TO
DEVELOP THEIR OWN AGENDA AND PROJECTS BOTTOM-UP. ON FEB.
12, 2003, PROF. BIANCO SAID THAT "THIS GOVERNMENT
(BERLUSCONI'S) CUTS THE FUNDS AND PILOTS THE MANAGEMENT OF
WHAT IS LEFT." IN PARTICULAR, BIANCO AND OTHER MEMBERS OF
THE CURRENT BOARD OF DIRECTORS, OPPOSED THE CREATION OF THE
NEW DEPARTMENTS, WHICH WOULD INCREASE THE "CENTRAL
BUREAUCRACY". COMMENT: ACTUALLY, THE WHOLE POINT OF THE
MORATTI REFORM IS TO REDUCE THE CNR BUREAUCRACY, WHICH WAS
UNRESPONSIVE TO DIRECT INSTRUCTIONS FROM THE MINISTRY DURING
BIANCO'S TENURE. END COMMENT.

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ACTION OES-00

R 280806Z MAY 03
FM AMEMBASSY ROME
TO SECSTATE WASHDC 0104
USDOC WASHDC
WHITE HOUSE WASHDC
INFO AMCONSUL MILAN
AMCONSUL FLORENCE
AMCONSUL NAPLES
EU MEMBER STATES COLLECTIVE

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ETO: 125958: NFA
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RESEARCHERS: TURN IN YOUR LAB COATS AND TEST TUBES!

19. (U) BIANCO AND RESEARCHERS OPPOSED TO THE MORATTI REFORM ORGANIZED ON FEB. 12, 2003 A DEMONSTRATION IN FRONT OF THE PARLIAMENT, WHERE THEY LEFT THEIR WHITE COATS AND LAB TUBES. THEY CLAIMED THE REFORM WAS PREPARED WITHOUT CONSULTING CNR RESEARCHERS, AND INTRODUCED NEW GOVERNMENT CONTROLS IN A LESS-AND-LESS FUNDED RESEARCH ENVIRONMENT. NOTE: MEMBERS OF THE CENTER-LEFT MINORITY COALITION WERE REPORTED TO BE PART OF THE DEMONSTRATION. END NOTE. MORATTI EXPLAINED TO THE PARLIAMENT THAT CNR HAD TO BE GOVERNED TEMPORARILY BY A COMMISSIONER BECAUSE PRESIDENT BIANCO STRONGLY OPPOSED THE REFORM. BIANCO REPLIED THAT HE HAD REPEATEDLY ASKED THE MINISTER TO ADDRESS THE PRO'S AND CON'S OF THE 1999 REFORMS AND CNR COMMENTS ON THE 2002 RESEARCH GUIDELINES ISSUED BY MORATTI.

110. (U) ON MARCH 11, BIANCO EXPLAINED THE RESEARCHERS' PERPLEXITY ABOUT THE MORATTI REFORMS BEFORE THE PARLIAMENT AND THE MINISTER. ACCORDING TO THE PRESS, THE FINAL LAW DECREES APPROVED ON MAY 16 HAVE INCORPORATED A FEW CHANGES DURING THEIR APPROVAL PROCEDURE THROUGH SIX PARLIAMENTARY

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COMMITTEES. THE FINAL TEXT IS NOT YET AVAILABLE.

111. (SBU) ON MAY 20, PROF. ADRIANO DE MAIO, WHO WILL BE APPOINTED AS CNR COMMISSIONER THE WEEK OF MAY 26 - TOLD ESTCOUNS HIS PRIORITIES FOR THE CNR REFORM:

- DEVOTE MORE CNR FUNDS TO RESEARCH, BY REDUCING THE ADMINISTRATIVE STAFF AND COSTLY NON-RESEARCH INFRASTRUCTURES.
- TRANSFORM CNR IN A RESEARCH AGENCY AND ENCOURAGE MOBILITY OF RESEARCHERS FROM UNIVERSITIES TO CNR TO ALLOW YOUNGER RESEARCHERS TO FLOW TO CNR.
- IMPLEMENT AN EVALUATION SYSTEM FOR RESEARCH RESULTS.
- CONCENTRATE FUNDS IN FEW STRATEGIC SECTORS (DE MAIO MENTIONED: NEW MATERIALS, NANOTECHNOLOGY, ICT, ENERGY) WHICH COULD DEVELOP INDUSTRIAL APPLICATIONS, AND IN FEW CENTERS OF "EXCELLENCE" (E.G.: LECCE, MILAN, TRENTO, TRIESTE, AND NAPLES).

112. (SBU) COMMENT: WE DO NOT KNOW HOW FAR DE MAIO WILL BE ABLE TO GO, ESPECIALLY IN REDUCING OR MOVING LONG-ENTRENCHED CNR BUREAUCRATS AND ADMINISTRATORS TO OTHER MINISTRIES; OR CONCENTRATING THE FUNDS IN ONE CENTER PER STRATEGIC SECTOR, THEREBY EXPECTING THE ITALIAN RESEARCHERS TO OVERCOME THEIR OFTEN DISADVANTAGEOUS COMPETITION AND AVERSION TO MOVE FROM NORTH TO SOUTH. HOWEVER, DE MAIO APPEARED EXPERIENCED AND EAGER TO ACT, AND WAS CERTAINLY OPTIMISTIC ABOUT REACHING HIS TARGETS GIVEN THE RESEARCH MINISTER'S SUPPORT. END COMMENT.

GUIDELINES FOR RESEARCH EVALUATION
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113. (U) AS PART OF THE 2003 REFORM, MINISTER MORATTI ALSO RELEASED NEW GUIDELINES FOR EVALUATION OF RESEARCH PROPOSALS AND RESULTS. NOTE. RESEARCH EVALUATION WAS INTRODUCED FOR THE FIRST TIME IN THE 1999 REFORM, BUT ONLY FOR PROPOSALS (I.E. NO RESEARCH FINDINGS NEEDED TO BE REPORTED BY SUPPORTED RESEARCHERS). END NOTE. THE GUIDELINES PROVIDE FOR THE APPOINTMENT OF ABOUT 150 PEER-REVIEWERS "WHO MUST BE EXTERNAL TO THE GOI RESEARCH INSTITUTES" AND SHOULD INCLUDE FOREIGN RESEARCHERS. THE EVALUATION WILL INCLUDE QUALITY, ORIGINALITY, INNOVATION, INTERNATIONAL COOPERATION, AND THE ECONOMIC IMPACT OF SUPPORTED PROJECTS.

2002 GOI PUBLIC RESEARCH FUNDS

AGENCY

MILLIONS EURO

ASI - ITALIAN SPACE AGENCY 638
CNR 544
INFN - NUCLEAR PHYSICS 287
INFN - PHYSICS OF MATTER 24
INGV - GEOPHYSICS AND VOLCANOLOGY 21
OGS - OCEANOGRAPHY AND GEOPHYSICS 11

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ACTION OES-00

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	OIC-02	PM-00	PRS-00	ACE-00	SP-00	SSO-00	SS-00
	TEST-00	T-00	USIE-00	EPAE-00	PMB-00	G-00	SAS-00
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R 280806Z MAY 03
FM AMEMBASSY ROME
TO SECSTATE WASHDC 0105
USDOC WASHDC
WHITE HOUSE WASHDC
INFO AMCONSUL MILAN
AMCONSUL FLORENCE
AMCONSUL NAPLES
EU MEMBER STATES COLLECTIVE

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INAF - ASTROPHYSICS	8
UNIVERSITY	134
ISS - INSTITUTE OF HEALTH	7
IRCSS - BIOMEDICAL RESEARCH	183
TOTAL	1,857

NOTE: EMBASSY HAS LITTLE CONFIDENCE IN THE COMPLETENESS AND
RELIABILITY OF THESE FIGURES, WHICH HAVE BEEN TAKEN FROM
SEVERAL BOTH PRIVATE AND PUBLIC SOURCES. END NOTE.

THE OTHER SIDE OF THE COIN - INDUSTRIAL INNOVATION

¶14. (U) IN SPITE OF ITS PRE-ELECTION PROMISES, THE
BERLUSCONI GOVERNMENT SINCE 2001 HAS NOT TRANSLATED ITS
RHETORICAL SUPPORT FOR SCIENCE AND INNOVATION INTO A BETTER-
FUNDED, MORE COMPETITIVE RESEARCH PROGRAM FOR ITALY. GOI
RESEARCH FUNDING, ADJUSTED FOR INFLATION, IS STILL IN
DECLINE: COMPARED TO 2002 LEVEL, CNR FUNDS WILL DECLINE BY 2
PCT IN 2003 AND BY AS MUCH AS 10 PCT IN 2004. IN ADDITION,
THERE IS A LOW INDUSTRIAL RESEARCH CAPACITY AND A LOW
MEASURED INVESTMENT BY SME COMPANIES IN R AND D.
UNCOMPETITIVE SALARIES AND BUREAUCRACY IN RESEARCH AGENCIES
HAVE CONTRIBUTED TO A "BRAIN DRAIN" OF TOP ITALIAN
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SCIENTISTS TO THE U.S. AND OTHER COUNTRIES.

¶15. (U) SOMEWHAT UNREALISTICALLY, THE INDUSTRIAL COMMUNITY,
DESPITE THE LOW OVERALL EXPENDITURES ON R AND D, AND TWENTY
YEARS OF LOW RANKING IN INNOVATION AND COMPETITIVENESS IN
OECD AND EU STATISTICS, CONTINUES TO BELIEVE R AND D SHOULD
DRIVE THE FUTURE OF ITALIAN INDUSTRY. ITALY'S CHIEF
FINANCIAL PAPER "IL SOLE-24 ORE," HAS FEATURED MANY ARTICLES
ON THE SHORTCOMINGS OF THE ITALIAN RESEARCH SYSTEMS IN THE
LAST THREE MONTHS. LOW TOTAL INVESTMENT IN R AND D, POOR
LINKAGES BETWEEN RESEARCH AND INDUSTRY (TRUE OF BOTH CNR
INSTITUTES AND UNIVERSITIES), COMPOUNDING FACTORS, WHICH
OFTEN SLOW INVESTMENT (INFLEXIBLE LABOR, GOVERNMENT
BUREAUCRACY), AGING INDUSTRIES LIKE CHEMICALS, AND SLOW
ENTRY INTO TECHNOLOGY PARADIGM SHIFT ARENAS LIKE ICT AND
BIOTECHNOLOGY, ALL SUGGEST CHANGE IS NEEDED.
CONFINDUSTRIA'S VICE PRESIDENT GIANCARLO CERUTTI HAS CALLED
ON THE ITALIAN GOVERNMENT TO CREATE A BRIDGE BETWEEN THE
WORLD OF INDUSTRY AND THAT OF THE UNIVERSITY. OTHERS SEE IN
PATENT LAW AND PRACTICE A KEY IMPEDIMENT, POINTING OUT THAT
THE PRODUCTIVITY OF ITALIAN RESEARCHERS, MEASURED IN
SCIENTIFIC CITATIONS PER EURO INVESTED IS SECOND IN THE G-7
TO ONLY GREAT BRITAIN. HOWEVER, IN TERMS OF PATENTS, ITALY
LAGS THE LEADERS BADLY. IN THE LAST FIVE YEARS, THE NUMBER
OF PATENTS FILED BY CNR HAS DECLINED 41 PCT WITH RESPECT TO
THE PRECEDING FIVE YEARS.

¶16. (U) EVEN FEWER PATENTS FIND THEIR WAY TO INNOVATIONS.
ACCORDING TO A MARCH 2003 PRESS REPORT, CNR MANAGES TO
LICENSE AND TRANSFER ONLY 20 PERCENT OF PATENTS FILED; THE
POLITECNICO IN MILAN HAS LICENSED ONLY ONE PATENT IN THE
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LAST THREE YEARS. CNR TRANSFERS TO INDUSTRY ONLY 7 PCT OF
THE PATENTS TRANSFERRED OR LICENSED BY MIT. FROM SALES AND
ROYALTIES OF PATENTS MIT DERIVES 10 PCT OF ITS ANNUAL BUDGET
WHILE CNR DERIVES LESS THAN 0.1 PCT OF ITS RESEARCH BUDGET
FROM SUCH TRANSFERS. TO PUT THE NAIL IN THE ITALIAN
INNOVATION COFFIN, IN TERMS OF RESEARCH-BASED SPIN-OFF'S, SO
FAR CNR HAS LAUNCHED ONLY 3, THE POLITECNICO ONLY 2, WHILE
AMERICAN UNIVERSITIES LAUNCHED 450 IN THE YEAR 2000 ALONE.

¶17. (U) ALL COMMENTATORS AGREE ON THE LACK OF SYNERGY BETWEEN RESEARCHERS, INDUSTRIAL INNOVATORS, AND THE FINANCIAL AND GOVERNMENT COMMUNITIES. MOST INDUSTRIALISTS ARE QUICK TO BLAME THE GOVERNMENT AND LOW LEVELS OF PUBLICLY FUNDED RESEARCH, BUT THE BLAME, IF ANY IS TO BE ATTRIBUTED, HAS TO BE SHARED. ACCORDING TO THE 2002 EUROPEAN INNOVATION SCOREBOARD, NONE OF THE TOP TEN REGIONS FOR INNOVATION IN EUROPE IS IN ITALY. AMONG FOURTEEN INDICATORS IN THE EU (E.G. SCIENCE AND ENGINEERING GRADUATES /20-29 YEARS; POPULATION WITH TERTIARY EDUCATION; PUBLIC R AND D/GDP; BUSINESS R AND D/GDP; HIGH TECH MANUFACTURING VALUE ADDED, ETC), ITALY LEADS IN NO CATEGORY. WHILE THE OVERALL REPORT IS FLAWED, AND INDICATORS GENERALLY NOT INTEGRATED DUE TO DIFFERENT TIME PERIODS FOR DATA SETS, ITALY IS NEAR THE BOTTOM OF THE EU LADDER IN PERCENTAGE OF POPULATION WITH

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	IO-00	L-00	VCE-00	AC-01	NSAE-00	NSCE-00	NSF-01
	OIC-02	PM-00	PRS-00	ACE-00	SP-00	SSO-00	SS-00
	TEST-00	T-00	USIE-00	EPAE-00	PMB-00	G-00	SAS-00

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R 280806Z MAY 03
FM AMEMBASSY ROME
TO SECSTATE WASHDC 0106
USDOC WASHDC
WHITE HOUSE WASHDC
INFO AMCONSUL MILAN
AMCONSUL FLORENCE
AMCONSUL NAPLES
EU MEMBER STATES COLLECTIVE

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SUBJECT: SWEEPING ITALIAN RESEARCH REFORMS SWEEP OUT CNR
PRESIDENT BIANCO BUT MAY NOT SWEEP IN INDUSTRIAL INNOVATION

TERTIARY EDUCATION (25-64 YEARS OF AGE - 10.3 PCT COMPARED TO THE EU AVERAGE OF 21.2 PCT) AND KNOWLEDGE CREATING BUSINESS EXPENDITURES ON R AND D. YET ITALY IS NEAR THE EU AVERAGE IN PERCENTAGE OF EMPLOYMENT IN MEDIUM HIGH TECH MANUFACTURING (2001 DATA) AND EMPLOYMENT IN HIGH TECH SERVICES.

¶18. (U) ATTEMPTS TO STRENGTHEN THE LINKAGE BETWEEN THE RESEARCH COMMUNITY AND INDUSTRIAL SECTORS ARE MANY, FROM RESEARCH CONTRACTS AWARDED TO UNIVERSITIES, TO THE ESTABLISHMENT OF A NATIONAL NETWORK OF TECHNOLOGY AND SCIENCE PARKS, TO THE DESIGNATION OF NATIONAL CENTERS OF EXCELLENCE (A PROJECT BEGUN TWO YEARS AGO, WHICH HAS LARGELY COLLAPSED), TO THE DESIGNATION BY THE MARKETING OF RESEARCH OF ITALIAN REGIONS AS "POLES" FOR TECHNOLOGY INNOVATIONS (E.G. TORINO FOR ICT, VENETO FOR NANOTECHNOLOGIES). THE DATA OVERALL SUGGESTS THAT WHILE THESE GOVERNMENT LED AND FINANCED INTERVENTIONS YIELD SOME RESULTS, THE PROBLEMS IDENTIFIED ABOVE PERSIST. IN A RECENT VISIT TO THE UNIVERSITY OF TRIESTE AND THE AREA SCIENCE PARK, ESTCOUNS REVIEWED DATA WHICH SUGGEST THAT THE "HIGH-TECH" STRATEGY OF THE REGION OF FRIULI-VENEZIA-GIULIA IN THE NORTHEAST OF ITALY HAS SIGNIFICANT SHORTCOMINGS. A REVIEW OF THE TRADITIONAL INDUSTRIES OF THE REGION--FURNITURE, PAPER, FOOD INDUSTRIES-- AND THE INVESTMENT STRATEGIES OF THE AREA PARK

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AND THE SURROUNDING INTERNATIONAL RESEARCH CENTERS - ICGB AND ICTP, MADE CLEAR THAT THERE ARE MANY OPPORTUNITIES FOR EDUCATION IN SCIENCE AND ENGINEERING, BUT MANY FEWER FOR RELEVANT EMPLOYMENT IN LOCAL INDUSTRY. ACCORDINGLY, TRIESTE EXPERIENCES AN "OUT-MIGRATION" OF ITS BEST-EDUCATED TO MILANO, TORINO, AND HIGH-TECH AREAS OUTSIDE OF ITALY. WITHIN THE SCIENCE PARK ITSELF THERE ARE A NUMBER OF SPIN-OFF COMPANIES, BUT THEIR PRODUCTION IS MORE LIKELY TO BE RELATED TO THE RESEARCH CENTERS THAN TO LOCAL INDUSTRY. ACCORDINGLY, THEY STAY SMALL, HAVE CUSTOMERS OUT-OF-THE-REGION, AND LITTLE PROSPECT FOR GROWTH. THEY REMAIN IN THE SCIENCE PARK FOR THE SIMPLE REASON OF SUBSIDIZED SPACE FOR LABS AND OFFICE. SINCE THE SCIENCE PARK DOES NOT HAVE A LIMIT ON THE TIME PERIOD SPIN-OFFS MAY REMAIN UNDER SUBSIDIZED CONDITIONS (A GO AND GROW POLICY) A SMALL COMPANY PROVIDING A HIGHLY SPECIALIZED PRODUCT, LIKE TESTING OR DIAGNOSTIC EQUIPMENT, WITH A LIMITED MARKET CAN SURVIVE UNDER THESE SUBSIDY CONDITIONS--POTENTIALLY TAKING SPACE FROM NEWER SPIN-OFFS WITH BETTER PROSPECTS FOR GROWTH. NOR HAS AREA SCIENCE PARK OR THE REGION DEVELOPED A SUCCESSFUL INTERNAL MARKETING STRATEGY OR INCENTIVES TO ATTRACT FOREIGN COMPANIES OR INVESTMENTS TO CREATE A SERIOUS INTERNATIONAL INNOVATION CLUSTER. THE SAME STORY COULD BE TOLD FOR OTHER SCIENCE OR TECHNOLOGY PARKS IN ITALY, WITH AREA PARK IN TRIESTE, THE OLDEST, BEST DOCUMENTED, AND GENERALLY REGARDED AS THE MOST SUCCESSFUL.

WHY DOES ITALY BEAT THE ODDS?

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120. (SBU) WHILE ONLY ANECDOTAL DATA IS AVAILABLE, INTERVIEWS WITH UNIVERSITY AND INSTITUTE RESEARCHERS POINT IN SEVERAL CONSISTENT DIRECTIONS. FIRST IS A GENERATION GAP, WITH MANY RESEARCHERS NOW IN MID-CAREER BRINGING MORE INTERNATIONAL EXPERIENCE (AND ASSOCIATED EXTERNAL FUNDING) TO THEIR LABORATORIES. THE MORE COMPETITIVE NATURE OF INTERNATIONAL FUNDS HAS SHARPENED THE QUALITY OF RESEARCH PROPOSALS AND THE NEED FOR QUALITY RESULTS. ALTHOUGH NO RELIABLE DATA ON EXTRAMURAL FUNDING IS AVAILABLE (DE MAIO CONFIRMED THIS ON MAY 20), EMBASSY BELIEVES THAT FUNDING FROM EU AND NON-EU SOURCES LIKE NIH COMPRISE A SIGNIFICANT PART OF THE FINANCIAL RESOURCES OF THE BEST ITALIAN RESEARCHERS, CREATING A TWO-TIER SYSTEM WHICH SOME RESEARCHERS RECEIVE SIGNIFICANTLY LARGER SHARES OF FUNDING BASED ON QUALITY OF RESEARCH. THE DISTRIBUTION OF FUNDING IN ITALY WOULD BE AN INTERESTING TOPIC FOR STUDY. WHILE THERE IS NOTHING

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INFO	LOG-00	AID-00	CIAE-00	DINT-00	DODE-00	DOEE-00	SRPP-00
	EB-00	EUR-00	E-00	UTED-00	VC-00	TEDE-00	INR-00
	IO-00	L-00	VCE-00	AC-01	NSAE-00	NSCE-00	NSF-01
	OIC-02	PM-00	PRS-00	ACE-00	SP-00	SSO-00	SS-00
	TEST-00	T-00	USIE-00	EPAE-00	PMB-00	G-00	SAS-00
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121. (U) EXPLAINING WHY ITALY CONTINUES TO SUCCEED WITH INNOVATION IN INDUSTRY REQUIRES ADDITIONAL UNDERSTANDINGS. CHARACTERIZED BY SMES, WITH MOST COMPANIES HAVING FEWER THAN 100 EMPLOYEES, ITALIAN INDUSTRY IS AGILE BUT HAS LITTLE IN-HOUSE MONEY AVAILABLE FOR APPLIED RESEARCH DEPARTMENTS, NEVER MIND RESEARCH LABS ENGAGED IN FUNDAMENTAL RESEARCH. SINCE THIS KIND OF RANDD IS THE FORM TYPICALLY MEASURED BY STATISTICAL SURVEYS OF INNOVATION AT THE FIRM LEVEL, IT'S NOT SURPRISING THAT ITALY SCORES LOW, NEAR THE BOTTOM OF THE OECD. HOWEVER, TWO IMPORTANT FORMS OF INCREMENTAL INNOVATION ARE OVERLOOKED OR ONLY INCOMPLETELY CAPTURED BY THE USUAL STATISTICAL REPORTS. FIRST IS ONGOING PRODUCT DEVELOPMENT, WHICH EVEN SMALL FIRMS DO AS A MATTER OF SURVIVAL, CHANGING MATERIALS, ASSEMBLY PROCEDURES, FIT AND FINISH (PAINTS, COATINGS, POLISHING OF SURFACES), AND IMPROVING QUALITY CONTROL TO REDUCE PRODUCTION COSTS, INCREASE RELIABILITY, AND IMPROVE COMPETITIVENESS IN THE MARKET PLACE. THE SECOND INNOVATION STRATEGY OFTEN ONLY UNCLASSIFIED

CONCLUSION - MISSING OR CATCHING THE WAVE?

Q22. (SBU) ITALIAN R AND D FROM BASIC SCIENCE TO INDUSTRIAL INNOVATION HAS TWO FLAWS AND TWO STRENGTHS. THE FLAWS ARE TOO LITTLE MONEY OVERALL, AND A BELIEF BY THE GOVERNMENT THAT SHIFTING SOME MONEY FROM BASIC RESEARCH TO APPLIED RESEARCH OF COMMERCIAL RELEVANCE WILL BE ENOUGH TO ENCOURAGE INDUSTRY TO MORE ACTIVELY "PULL" RESEARCH RESULTS INTO THE

ITALIAN ECONOMY. HOWEVER, LEAVING ASIDE BIG PLAYERS LIKE PARASTATAL FINMECCANICA, WHICH INVESTED 350 MILLION EUROS IN R AND D LAST YEAR, FEW ITALIAN COMPANIES HAVE THE KNOW-HOW OR AVAILABLE MONEY TO LOOK VERY FAR UPSTREAM FOR NEW TECHNOLOGIES. EVEN FINMECCANICA DENIES TWO-THIRDS OF ITS TOTAL R AND D REPORTED EXPENDITURES OF ONE BILLION EUROS FROM PUBLIC SOURCES, MAINTAINS NO BASIC RESEARCH STRUCTURES, UNCLASSIFIED

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AND JUST SIX MONTHS AGO INITIATED ITS FIRST EVER STRATEGIC MAPPING OF TECHNOLOGY NEEDS AND ACQUISITION TARGETS. GIANCARLO GRASSO, THE FIRST CTO, TOLD ESTCOUN MAY 21 THAT FINMECCANICA IS STILL ABOUT DECLARATION OF INTENT THAN ACCOMPLISHMENT.

¶23. (SBU) ITALIAN STRENGTHS ARE AT EXACT OPPOSITE ENDS OF DISCOVERY-INVENTION-INNOVATION PROCESS, AND THIS EXPLAINS THE LARGE GAP BETWEEN THE INTERESTS OF RESEARCH INSTITUTES AND INDUSTRY, THE HISTORICALLY LOW LEVELS OF SUCCESSFUL COOPERATION BETWEEN THEM, AND THE GREAT DIFFICULTY THE ITALIAN GOVERNMENT OR THE COMBINATION OF LOCAL, REGIONAL, AND NATIONAL GOVERNMENTS WILL FACE IN CREATING THE SHORTER AND MORE NUMEROUS LINKAGES THAT WOULD FOSTER KNOWLEDGE CLUSTERS AT THE RELEVANT INTERFACES OF RESEARCH AND INDUSTRY, AND IN ATTRACTING INTERNATIONAL COMPANIES AND INVESTMENT CAPITAL NEEDED TO CREATE THE CRITICAL MASS NEEDED FOR A GLOBALLY COMPETITIVE INTERNATIONAL CLUSTER. ITALY HAS A LONG WAY TO GO IF IT WANTS TO CATCH THE NEXT LONG WAVE. SKODON

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